

Patent Abstracts of Japan

PUBLICATION NUMBER : 08235540
PUBLICATION DATE : 13-09-96

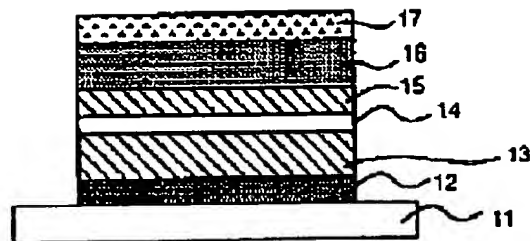
APPLICATION DATE : 01-03-95
APPLICATION NUMBER : 07041579

APPLICANT : HITACHI LTD;

INVENTOR : HOSHINO KATSUMI;

INT.CL. : G11B 5/39 H01F 10/30

TITLE : MULTILAYERED
MAGNETORESISTANCE EFFECT FILM
AND MAGNETIC HEAD



ABSTRACT : PURPOSE: To provide a multilayered film showing excellent magnetic characteristics by forming a multilayered film on a layer comprising oxide of 3d transition metal element in such a manner that two magnetic layers are separated from each other by a nonmagnetic layer and an antiferromagnetic layer is adjacent to one magnetic layer.

CONSTITUTION: A Si (100) single crystal substrate is used for a substrate 11, on which a Ni-O buffer layer 12 of various thickness is formed by, using an ion beam sputtering device. The Si substrate with the Ni-O buffer layer 12 formed is taken out from the ion sputtering device, cut into the size of 7×7mm, and then again put in the device. Then a 10nm thick Ni-Fe-Co magnetic layer 13, 3nm thick Cu nonmagnetic layer 14, 5nm thick Ni-Fe-Co magnetic layer 15, 10nm thick Fe-Mn alloy antiferromagnetic layer 16, and 5nm thick Ta protective layer 17 are formed on the buffer layer 12 formed on the substrate 11. Thereby, a magnetic recording/reproducing device of high performance can be obtained.

COPYRIGHT: (C)1996,JPO